THE MULTI-LEVEL SYSTEM OF SPACE MINING: REGULATORY ASPECTS AND ENFORCEMENT OPTIONS

Abstract

Few contests that space resource activities hold the potential to revolutionize the space sector. Whether this revolution will be for good or for worse primarily depends on how these activities will be regulated. Under the right normative framework, space resource activities can certainly deliver on their promise of a new era of prosperous and sustainable space exploration. But with the wrong rules (or lack thereof), they can destabilize the space sector to an unprecedented scale that might seriously compromise the peaceful and cooperative uses of outer space.

Like all activities in the exploration and use of outer space, space mining will have to be conducted in compliance with the provisions of the Outer Space Treaty (OST). This means, for example, that space resource activities will have to be conducted exclusively for peaceful purposes (under Article IV OST) and with due regard to the corresponding interests of all States Parties to the OST (under Article IX OST). But what does it take to conduct an invasive and exclusive activity like mining with due regard to the corresponding interests of others? Despite the immediate relevance of these questions on the legality of upcoming space resource activities, the concrete implications of the OST provisions on the conduct of space mining remain still unexplored in space law literature – until now.

The proposed paper would provide an executive summary of the findings developed by the author after four years of specialized research as presented in his forthcoming doctoral dissertation on regulatory aspects and enforcement options of space mining as multi-level regulatory system. To this end, the paper would be divided in three parts. First, the paper will present the current configuration of the multi-level regulatory system of space mining as shaped by the applicable international and national norms. Second, the paper will show which options would be available for the potential enforcement of the rules identified within the regulatory analysis. Third and final, the paper will conclude by evaluating the overall tenure of space mining as multi-level system and indicating future perspectives for its sustainable and peaceful evolution and application.